

INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP2004/010169

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C01B3/38

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 C01B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 00/00426 A (SCHADDENHORST DAVID ; SCHOONEBEEK RONALD JAN (NL); SHELL INT RESEAR) 6 January 2000 (2000-01-06) cited in the application page 7, line 19 - line 24; claims	1,4-6
Y	-----	2,3
X	WO 99/19249 A (PIETERSE COEN WILLEM JOHANNES ; JONG KRIJN PIETER DE (NL); SCHOONEB) 22 April 1999 (1999-04-22) page 5, line 5 - line 12; claims	1,4-6
Y	-----	2,3
Y	US 4 394 137 A (BRENT ALBERT ET AL) 19 July 1983 (1983-07-19) column 12, line 20 - column 13, line 4; claims	2,3
	-----	-/-

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

* Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the International filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the International filing date but later than the priority date claimed

- *T* later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *&* document member of the same patent family

Date of the actual completion of the International search

21 February 2005

Date of mailing of the International search report

07/03/2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel: (+31-70) 340-2040, Tx: 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Zalm, W

INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP2004/010169

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 744 067 A (JAHNKE FREDERICK CHARLES) 28 April 1998 (1998-04-28) the whole document -----	1-6
A	US 6 447 745 B1 (BERLOWITZ PAUL JOSEPH ET AL) 10 September 2002 (2002-09-10) column 12, line 18 - line 22; claims -----	1-6
A	US 2003/122266 A1 (BAREIS MARC ET AL) 3 July 2003 (2003-07-03) paragraph '0020!; claims; tables -----	1
A	EP 0 892 760 A (SNAM PROGETTI) 27 January 1999 (1999-01-27) cited in the application -----	

INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP2004/010169

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 0000426	A	06-01-2000	AT 222214 T AT 232836 T AU 746783 B2 AU 4776299 A AU 743727 B2 AU 4777699 A BR 9911654 A BR 9911739 A CA 2335970 A1 CA 2335983 A1 CN 1307538 T CN 1307539 T CZ 20004900 A3 DE 69902547 D1 DE 69902547 T2 DE 69905467 D1 DE 69905467 T2 DK 1098840 T3 WO 0000425 A1 WO 0000426 A1 EP 1098840 A1 EP 1093439 A1 ES 2182544 T3 ID 28037 A ID 27777 A JP 2002519181 T JP 2002519182 T NO 20006579 A NO 20006580 A PL 345181 A1 PL 345190 A1 PT 1098840 T US 2004228792 A1 US 6702960 B1 ZA 200100316 A ZA 200100317 A	15-08-2002 15-03-2003 02-05-2002 17-01-2000 31-01-2002 17-01-2000 20-03-2001 03-04-2001 06-01-2000 06-01-2000 08-08-2001 08-08-2001 15-08-2001 19-09-2002 22-05-2003 27-03-2003 11-09-2003 09-12-2002 06-01-2000 06-01-2000 16-05-2001 25-04-2001 01-03-2003 03-05-2001 26-04-2001 02-07-2002 02-07-2002 21-12-2000 21-12-2000 03-12-2001 03-12-2001 29-11-2002 18-11-2004 09-03-2004 29-08-2001 23-07-2001
WO 9919249	A	22-04-1999	AT 231102 T AU 737880 B2 AU 1335199 A BR 9813035 A CA 2306938 A1 CN 1275961 T DE 69810805 D1 DE 69810805 T2 WO 9919249 A1 EP 1025039 A1 ID 24366 A JP 2001519311 T NO 20001927 A PL 339812 A1 TW 440541 B US 6673270 B1 ZA 9809263 A	15-02-2003 06-09-2001 03-05-1999 15-08-2000 22-04-1999 06-12-2000 20-02-2003 11-12-2003 22-04-1999 09-08-2000 13-07-2000 23-10-2001 13-04-2000 02-01-2001 16-06-2001 06-01-2004 16-04-1999
US 4394137	A	19-07-1983	US 4371378 A AU 549751 B2 AU 8469682 A	01-02-1983 13-02-1986 16-12-1982

BEST AVAILABLE COPY

INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP2004/010169

Patent document cited in search report		Publication date	Patent family member(s)		Publication date
US 4394137	A		CA	1172044 A1	07-08-1984
			DE	3220546 A1	27-01-1983
			FR	2507615 A1	17-12-1982
			GB	2099843 A , B	15-12-1982
			IT	1151794 B	24-12-1986
			NL	8202327 A	03-01-1983
			NZ	200759 A	09-11-1984
			US	4490156 A	25-12-1984
			CA	1162046 A1	14-02-1984
			DE	3047734 A1	08-10-1981
			US	4400180 A	23-08-1983
			US	4371379 A	01-02-1983
US 5744067	A	28-04-1998	US	5358696 A	25-10-1994
			AU	680070 B2	17-07-1997
			AU	1040695 A	19-06-1995
			BR	9408247 A	27-05-1997
			CA	2177176 A1	08-06-1995
			CN	1136800 A	27-11-1996
			EP	0731773 A1	18-09-1996
			FI	962218 A	11-07-1996
			HU	75978 A2	28-05-1997
			JP	9502694 T	18-03-1997
			NO	962260 A	04-07-1996
			NZ	276225 A	25-09-1996
			PL	314726 A1	16-09-1996
			SK	70496 A3	09-04-1997
			WO	9515290 A1	08-06-1995
US 6447745	B1	10-09-2002	AU	8299601 A	04-03-2002
			CA	2415833 A1	28-02-2002
			EP	1322549 A2	02-07-2003
			JP	2004506583 T	04-03-2004
			WO	0216259 A2	28-02-2002
US 2003122266	A1	03-07-2003	DE	10002004 A1	09-08-2001
			WO	0154219 A1	26-07-2001
			DE	50101908 D1	13-05-2004
			EP	1252679 A1	30-10-2002
EP 0892760	A	27-01-1999	IT	MI960690 A1	13-10-1997
			AU	2384597 A	29-10-1997
			DE	69702190 D1	06-07-2000
			DE	69702190 T2	14-12-2000
			DK	892760 T3	21-08-2000
			EP	0892760 A1	27-01-1999
			NO	984735 A	08-12-1998
			WO	9737929 A1	16-10-1997
			RU	2175636 C2	10-11-2001

BEST AVAILABLE COPY